

Prime Minister Lays Foundation Stone Of India's First PM MITRA Park In Madhya Pradesh

Park is being established at Bhainsola village in Dhar district under the PM MITRA scheme, equipped with world-class facilities to abundantly benefit cotton producers.

About PM Mega Integrated Textile Region and Apparel (MITRA) Scheme

- **Launch:** By Ministry of Textiles in 2021.
- **Aim:** To develop integrated large scale and **modern industrial infrastructure facilities** for the entire value-chain of the **textile industry**.
 - ⊕ It is inspired by the 5F vision i.e., - **Farm to Fibre to Factory to Fashion to Foreign**.
- **Time Period:** 2021-22 to 2027-28.
- **Implementation Agency:** Special Purpose Vehicle owned by the Centre and State Government.
- **Funding:**
 - ⊕ Ministry of Textiles will provide **financial support in the form of Development Capital Support** upto Rs. 500 crore per park to the Park SPV.
 - ⊕ **A Competitive Incentive Support (CIS)** upto Rs. 300 crore per park to the units in PM MITRA Park shall also be provided to incentivise speedy implementation.
- **PM MITRA Park:** PM MITRA Parks at 7 sites viz. Tamil Nadu (Virudhnagar), Telangana (Warangal), Gujarat (Navasari), Karnataka (Kalaburagi), Madhya Pradesh (Dhar), Uttar Pradesh (Lucknow) and Maharashtra (Amravati) will be set up.
- **Eligibility and Selection Criteria:** Contiguous and encumbrance-free land parcel of at least 1000 acres, State Textile and industrial policy, etc.
 - ⊕ MITRA parks can be **either Greenfield or Brownfield**.

Potential Outcomes of PM MITRA Scheme

- **Attracting Investment:** Designed to attract large-scale investment, including Foreign Direct Investment (FDI), as well as local investment in the sector.
- **Boosting Competitiveness:** By enhancing infrastructure and facilitating economies of scale.
- **Economic Impact:** The scheme envisages generating nearly Rs. 70,000 crores in investment and creating 20 lakhs employment opportunities.

60th ratification of the High Seas Treaty paves way for its enforcement

High Seas Treaty was adopted in 2023 by the **Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction**.

- It was mandated that it would enter into force 120 days after 60 countries ratified it.

About High Seas Treaty

- It is formally known as the **Agreement on Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (BBNJ Agreement)**.
- It is a **legally binding treaty**.
- It is an agreement under the **United Nations Convention on Law of the Sea (UNCLOS)** on the **Conservation of Marine Biological Diversity of Areas beyond National Jurisdiction**.
 - ⊕ It is the third implementing agreement to **UNCLOS** with the other two being **1994 Agreement** related to the implementation of **UNCLOS** and the **1995 U.N. Fish Stocks Agreement**.
- **High Seas:** These are areas beyond national jurisdiction which are **global common oceans open to all** for internationally lawful purposes such as navigation, overflight, laying submarine cables and pipelines, etc.
- **India and High Seas Treaty:**
 - ⊕ In 2024, Union Cabinet approved India's signing of the High Seas Treaty.
 - ⊕ **Implementing Ministry:** Ministry of Earth Sciences.

High Seas Treaty addresses Four Main Issues



Marine Genetic Resources, including the fair and equitable sharing of benefits.



Measures such as Area-Based Management Tools, including Marine Protected Areas



Environmental Impact Assessment



Capacity Building and Transfer of Marine Technology

State Finances 2022-23 report released by the Comptroller and Auditor General

The report is **first of its kind**, providing comprehensive **data, analysis, and trends on fiscal parameters** for all 28 states over a **10-year period (2013-14 to 2022-23)**.

Key Findings

- › States' total debt in 2022-23 was **22.17 %** of the country's **Gross Domestic Product (GDP)**.
 - ⊕ **Fiscal Responsibility and Budget Management (FRBM) Act (2003) benchmark:** State Government Debt shall be 20% of GDP by 2024-25.
- › **Debt-to-GSDP Ratio:** Highest ratio of **40.35** per cent was recorded in **Punjab**, followed by **Nagaland** (37.15 per cent) and **West Bengal** (33.70 per cent).
- › **Fiscal Deficit:** All 28 States in **deficit**; ranged from Gujarat (0.76% of GSDP) to Himachal Pradesh (6.46%).
 - ⊕ **FRBM benchmark:** States needed to achieve a fiscal deficit of 3.5 % of GSDP in FY 2022-23.
- › **Wide Gaps in Revenue Capacity:** States' Own Tax Revenue (SOTR) share **70% in Haryana** and as low as **9% in Arunachal Pradesh**.

Why is public debt so high in many Indian states?

- › **Rising Subsidy Burden:** Driven by farm loan waivers, free/subsidised services (**like electricity to agriculture and households**), **cash transfers to farmers, youth, women** etc.
- › **High Committed Expenditures** (E.g., interest payments, expenditure on salaries and wages, etc.): During the period 2013-14 to 2022-23, its share has remained above 42 % of the revenue expenditure and above 6 % of the GSDP (except in 2013-14 and 2016-17).
- › **Other:** Limited Revenue Mobilisation (E.g., **Dependence on GST**) etc.

Centre for Marine Living Resources and Ecology (CMLRE) study finds major ecological damage from ELSA 3 shipwreck

ELSA 3 ship sank in the SE Arabian Sea off the Kerala Coast, carrying **tonnes of furnace oil and low-sulphur diesel**.

- › Despite winds and ocean currents, oil remained concentrated suggesting continued leakage from unsealed compartments causing **marine oil spill disaster**.

Key Findings of Study

- › **Chemical Contamination and Persistence of Pollutants:** Wreck served as a local source of heavy metals such as nickel, lead, copper, and vanadium, detected in water and sediments.
 - ⊕ Apart from this **Oil Slick, Polyaromatic hydrocarbons or PAH** (naphthalene, fluorene, anthracene, etc.) and other **petroleum-derived pollutants** were detected.
- › **Biological Impacts across Marine Food Chain:**
 - ⊕ **Bioaccumulation:** Zooplankton, which form the base of the marine food chain, were found to contain high levels of petroleum-derived pollutants.
 - ◆ Bioaccumulation is **accumulation over time of a contaminant** (such as a pesticide or heavy metal) **in a living organism**.
 - ⊕ **Fish eggs & larvae:** Showed signs of decay/mortality posing threat to **fisheries** in the Arabian Sea.
 - ⊕ **Benthic organisms:** Sensitive species declined and pollution-tolerant worms and bivalves survived a clear sign of **acute ecological stress** and habitat degradation.
 - ◆ Benthic organisms are animals **living on or attached to the seafloor**.

Initiatives Undertaken to Tackle Marine Pollution from Ships

- › **International Convention for the Prevention of Pollution from Ships or MARPOL** (India is a signatory).
- › **International Convention on Oil Pollution Preparedness Response and Cooperation (OPRC)** 1990 (India is a signatory).
- › **International Convention on Civil Liability for Bunker Oil Pollution Damage (2001):** India ratified the convention in 2015.
- › **National Oil Spill Disaster Contingency Plan, 1996:** Indian Coast Guard as the central coordination authority responsible for combating oil pollution.

Researchers create world's 1st functioning AI-designed viral genome

Scientists at **Stanford University and the Arc Institute** have successfully developed the **world's first genome** created entirely with the help of artificial intelligence.

- AI models have been previously used to **generate DNA sequences, single proteins and multi-component complexes**.

About AI Designed Viral Genome

- **Achievement:** Scientists leveraged AI to write coherent viral genomes, producing **bacteriophages** that can effectively **target/kill antibiotic-resistant bacteria**.
- **Method:** They used the Evo AI genomic model to **redesign a tiny bacteriophage (ΦX174)** that infects Bacteria E. coli.

Potential uses of AI in Biosciences

- **Biotechnology & Medicine:** Could speed up **drug and vaccine development**, making treatments more effective.
- **Bacterial Control:** Custom **viruses could be engineered** to target **drug-resistant bacteria**.
- **Research:** Opens **new frontiers** for **industrial, agricultural, and scientific** applications.
 - ⊕ **E.g., DeepMind's AlphaFold** solved the 50-year-old challenge of Protein Structure/shape Prediction.
- **Synthetic Biology:** Enables development of biofuels, biodegradable materials, and engineered microbes.
- **Insight:** Provides **deeper understanding** of **gene interactions, evolution, and regulation**.

Issues with use of AI in Biosciences

- ⊕ **Dual-use Risks:** Technology could be used to create dangerous pathogens or bio-weapons.
- ⊕ **Biosafety:** Accidental release poses **ecological and health risks**.
- ⊕ **Bio Ethics and Regulation:** **Absence of global guidelines** raises accountability concerns.
- ⊕ **AI Dependence:** Heavy reliance on AI may **reduce human supervision, increasing risk of errors**.


Also In News



Clearing Corporation of India (CCIL)

RBI Governor urges CCIL to explore settlement options beyond the traditional dollar-rupee framework for internationalisation of rupee.

About CCIL

- **Founded:** In **2001** for offering **reliable clearing and settlement** services in money and government securities markets.
 
 - ⊕ Clearing is process of confirming trade details. Settlement is when actual exchange of money and securities takes place.
- It is a systemically important financial market infrastructure (FMI), regulated by **RBI under Payment and Settlement Systems Act, 2007**.
- **Role:** It acts as a Central Counterparty (CCP), which means it guarantees settlement even if one party defaults, reducing settlement risk.
- **Recognition:** Declared Qualified Central Counterparty (QCCP) by RBI.



National Archives of India (NAI)

50th Golden Jubilee Meeting of the National Committee of Archivists (NCA) was co-hosted by NAI.

- NCA is an **all-India professional body** of archivists **established in 1953** and headed by **Director General of Archives, NAI**.
- NCA work is to **discuss professional and technical problems** being faced by Archives Departments.

About NAI

- **Genesis:** 1891 at Calcutta (Kolkata) as the Imperial Records Department.
- **Ministry:** Attached office of Ministry of Culture.
- **Present Location:** New Delhi (One Regional office: Bhopal; Three Records Centres: Bhubaneswar, Jaipur and Puducherry).
- **Purpose:** Custodian of the records of enduring value including public records, private papers, oriental records, cartographic records and microfilms, etc.
- **Headed by:** Director General of Archives for the implementation of Public Records Act, 1993 and Public Records Rules, 1997.





India AI Mission

Ministry of Electronics and Information Technology (MeitY) announced that **500 data labs** will be established nationwide as part of the **India AI Mission**.

About India AI Mission

- **Launch** in 2024 by the MeitY.
- **Aim:** To foster AI innovation by democratizing computing access, enhancing data quality, and developing indigenous AI capabilities.
- **Implementing Agency:** IndiaAI, an Independent Business Division (IBD), under MeitY.
- **Based on 7 pillars** such as IndiaAI Innovation Centre, IndiaAI compute capacity, etc.



FCRA, 2010

The Supreme Court pulled up the Union Government for non-granting of FCRA renewal for two NGOs.

- Renewal was rejected due to violation of Section 7 of FCRA.

Foreign Contribution (Regulation) Act, 2010 (FCRA)

- **Nodal Ministry:** Ministry of Home Affairs
- **Aim:** Regulate and monitor foreign contributions and hospitality, **prohibiting their use for activities detrimental to national interest**.
- **Section 7 of FCRA:** Prohibits any person or organization that has received foreign contribution under the Act from transferring such funds to any other person or organization.
 - ⊕ **Exception:** Contributions made by **Non-Resident Indian**, from his personal savings, through the normal banking channels, is **not treated as foreign contribution**.



UN 1267 Committee

A joint Pakistan-China bid to list the **Balochistan Liberation Army (BLA)** and the **Majeed Brigade** under the **UN 1267** sanctions regime has been blocked by the **United States, France and the United Kingdom**.

About UN 1267 Committee

- **Created in 1999** to oversee **sanctions against the Taliban, Al-Qaida and affiliated groups/individuals**.
- Also called the **ISIS and Al-Qaeda Sanctions Committee**.
- It comprises all **permanent and non-permanent members of the UNSC**.
- **Key Functions:** Asset freeze, Travel ban, Arms embargo, etc.



Fentanyl

US imposed visa bans on Indians linked to fentanyl precursor chemicals trafficking.

About Fentanyl

- It is a **potent synthetic opioid** for **analgesic (pain relief)** and **anesthesia**.
- It is **approximately 100 times more potent than morphine** and **50 times more potent than heroin** as an analgesic.
- **Health Impact:** Like other opioids, **alters brain activity**, leading to compulsive use despite harmful effects (like drowsiness, visual disturbances, etc.).
 - ⊕ **High doses** can cause life-threatening conditions or death.



Poompuhar (Kaveripattinam)

After over two decades, an underwater archaeological survey has commenced off the coast of Poompuhar.

About Poompuhar

- **Port City:** Ancient **Chola port city** at the **mouth of the Kaveri River, Tamil Nadu and second capital** of the cholas.
- **Ancient Trade:** Major center for maritime trade, connecting South India with overseas markets during the Sangam period.
 - ⊕ Famous for **exporting pearls, spices, and textiles**.
- It is believed that **ancient city of Poompuhar** was submerged by the sea which find **detailed description in Manimekhalai**.
 - ⊕ The **Tamil epic "Manimekalai"** is authored by the Tamil poet Sattanar, who lived during the Sangam period.



H-1B VISA

US President signs a proclamation **imposing a \$100,000 annual fee on H-1B visa applications**.

About H-1B visa

- It is a U.S. **non-immigrant visa for skilled workers** in specialized occupations, allowing them to **work in the U.S. temporarily**.
- **Specialty Occupations:** These fields typically include IT, engineering, and medicine, which demand a bachelor's degree or equivalent experience.
- **Sponsorship:** **Employer sponsorship is mandatory** for the visa application.
- **Validity:** Initially valid for 3 years, extendable up to **6 years**.
- **Annual Cap:** **65,000 visas per year**, plus **20,000 additional** for advanced degree holders.

Place in News



Estonia (Capital: Tallinn)

Estonia sought **North Atlantic Treaty Organization (NATO)** consultations after Russian jets violated its airspace.

Political Features

- A **Baltic country** in **Northern Europe**.
 - ⊕ Besides Estonia, the Baltic region includes **Latvia and Lithuania**.
- **Land Borders:** Russia (east) and Latvia (south).
- To the north, Estonia is bounded by the Gulf of Finland, while to the west it opens to the Baltic Sea.

Geographic Features

- **Swamps and bogs** account for nearly 22% of Estonia's total land area.
- **Highest Point:** Suur Munamagi
- **Longest River:** The Võhandu

